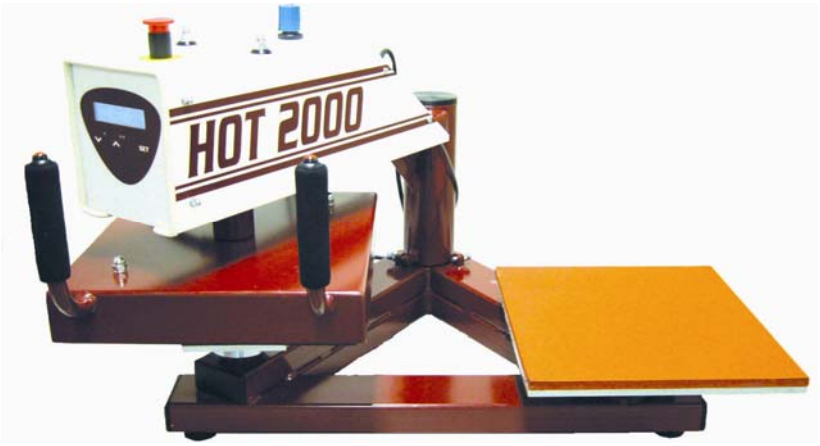
HOT 2000



USER'S MANUAL

version 1.3 Beta

HOT screen

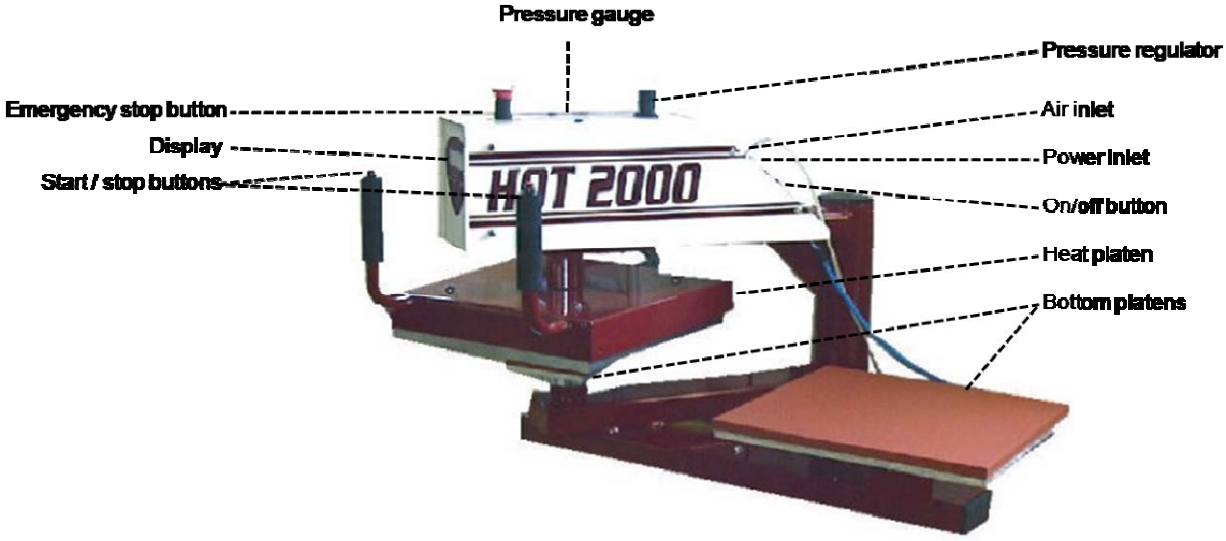
CE

Hot 2000 User's manual

Introduction....3
Placement and setup....3
Changing bottom platens....4
Security....5
Emergency stop....5
Watchguard....5
Settings....6
Working mode display....6
Setting the temperature....6
Setting the time....7
Recommended temperature / time settings....7
Resetting the counter....8
Adjusting pressure....8
Maintenance....9
Operating the HOT 2000....9
Start / Function test....9
Pressing heat transfers with HOT 2000....10
Specifications HOT 2000....11
Parts included....11
Spare parts....12
Accessories....12
Declaration of conformity....14

Introduction

Congratulations on your purchase of the HOT 2000 heat transfer press. HOT 2000 is a advanced and ergonomic heat transfer press designed to facilitate easy application of heat transfer decals on textiles. Please take your time to read through this manual to get acquainted with the key features and functions of the machine, and learn the methods needed for consistent successful and effective results. Use the illustration below to locate the main parts of the HOT 2000.



HOT 2000 is delivered with three types of bottom platens. Two large platens are ideal for application of large or multiple transfers i.e. large back prints or combinations of logos and names. The medium oblong platen is the best to use for prints on trousers and sleeves. The small platen can be used to apply prints in tight spaces without damaging adjacent details.

Placement and setup

Locate the HOT 2000 press on a firm and sturdy work surface/table. Check that the surface is horizontal with a spirit level before placing the HOT 2000 on it. The work area of the press is 20 cm (~8”) above the table that the press is located on, which for most people means that 75-90 cm (~30”-36”) is the ideal height of the table when working in an upright position.

IMPORTANT: The press should be securely fastened to the table with the included bolts. Failure to do so increases the risk for accidents.

For an efficient working environment, make sure that there is sufficient space on both sides of the machine for placement of garments to be printed as well as finished garments.

HOT 2000 is intended for indoor use and should be placed in rooms with a temperature between 10°C and 35°C.

Avoid placing HOT 2000 in the following environments:

- Close to radio transmitters.
- With lots of static electricity (for example in rooms with synthetic fitted carpets)
- Close to explosive materials.

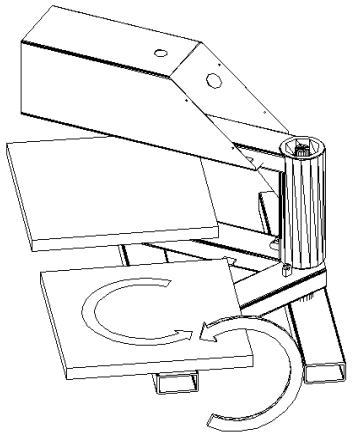
Connect the power cord to a properly grounded 210-240 volt electrical socket with a rating of at least 10 Ampere. The power plug on the HOT 2000 is on the back of the machine adjacent to the main power switch. There is a main fuse and a spare fuse just below the plug. Allow enough slack in the power cord for the upper part of the machine to move freely without tightening the cord. Extension cords, if used, should be as short as possible and be rated for at least 10 Ampere (cable dimensions typically minimum 1,5 mm^2 / 15 gauge). If using a circuit where other high demand equipment, such as a compressor or an additional heat press is connected, it is important to make sure that the maximum capacity of the circuit is enough to handle all the connected equipment.

IMPORTANT: The machine should under no circumstances be connected to an ungrounded electrical socket.

Connect the air hose to a compressor capable of supplying 5-8 bar. The connection is a ½" quick connector included with the HOT 2000. Make sure that there is enough slack in the air hose to allow free movement for the upper part of the machine without tightening the hose.

NOTE: We recommend using a compressor with in-line lubricator and automatic separation of condensation water.

Changing bottom platens



Switch the machine off and let the heat platen cool off before changing bottom platens. To remove one of the platens start by turning it two laps counter clockwise. Thereafter grip the back of the platen firmly and pull it upwards and against you.

To mount a platen start by putting it in place and then turn the machine on and press it downwards by placing the heat platen above it and pushing both start/stop buttons. When the heat platen is down release it immediately by pushing one of the start/stop buttons. Complete the operation by moving the heat platen out of the way and turn the new platen two laps clockwise.

Security

For security reasons it is important that the following precautions are respected:

- The heat platen as well as the protective cover above the heat platen can be very hot. Therefore it is important that only qualified personnel has access to the machine.
- Never place any part of the body between the heat platen and the bottom platens when the machine is switched on.
- When changing garments on one of the bottom platens the heat platen should always be positioned in the opposite endpoint.
- The machine must be switched of and disconnected from the mains power when switching between different bottom platens.
- Never use transfer decals of unknown qualities or decals not approved for heat transfer. Doing so may lead to fire hazard and release of poisonous gases.
- Only apply transfers on textiles that are capable of withstanding the heat transfer temperature. If in doubt check with the textile manufacturer.
- Don’t cover the machine.
- Don’t leave the machine switched on at unmanned premises.
- Never wash the machine with flowing water. Use a damp cloth to clean the machine.
- The only part of the machine that needs lubrication is the axel. Never use any type of grease or lubricant on any other part of the machine.

Emergency stop

The emergency stop button is the red button located on the top of the HOT 2000. Pressing the emergency stop disconnects all electric circuits and raises the heat platen. Use the emergency stop to avoid accidents from overheating, short circuits, fire, and stuck hands or other parts of the body. To reset the emergency stop turn the emergency stop button clockwise.

IMPORTANT: Always make sure that the fault condition is corrected before resetting the emergency stop.

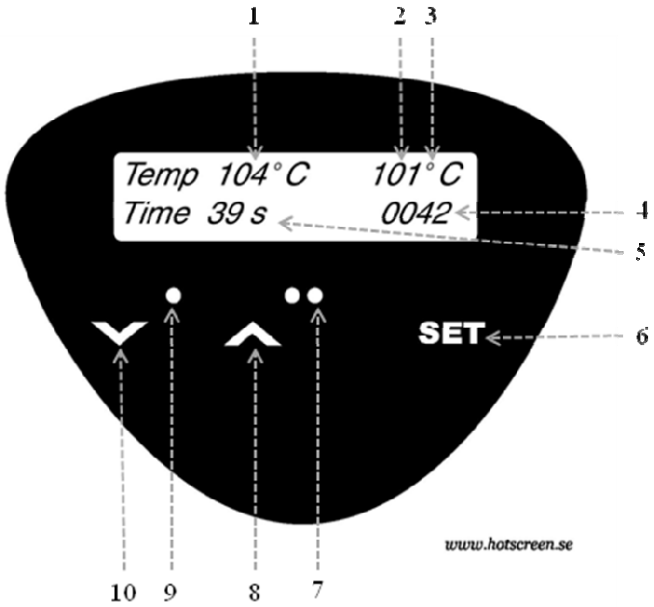
Watchguard

The HOT 2000 is equipped with a guarding mechanism that detects fault conditions in the machine. When fault conditions are detected the watchguard will disconnect all functions such as heating and pressing down the plate. If the watchguard is activated and there is no apparent fault with the machine it is possible to reset the guard by switching the machine off and waiting for ten seconds before it is turned on again. If the watchguard remains or is activated again shortly it is necessary to contact a service technician to repair the machine.

Settings

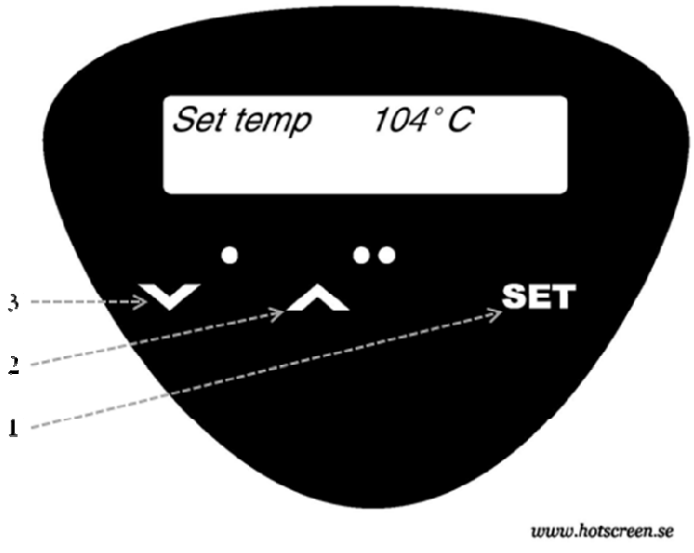
Working mode display

In normal working mode the display will show set temperature, actual temperature, set time and number of completed presses since last counter reset.



1. Set temperature.
2. Actual temperature.
3. Flashing of the degree sign indicates active and working electronics.
4. Number of completed presses.
5. Set time.
6. SET button.
7. Green right indicator shows that heat pressing is in progress.
8. INCREASE button.
9. Red indicates that the heat of the heat platen is switched on.
10. DECREASE button.

Setting the temperature



To change the temperature setting first press SET (1) one time to enter temperature adjustment mode. If no button is touched for three seconds the display will shift back to working mode.

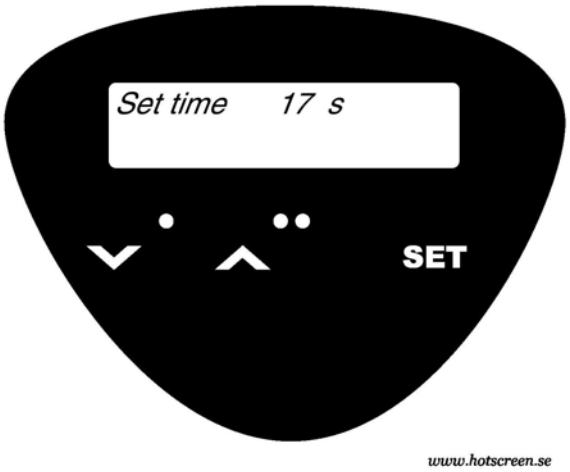
When in temperature adjustment mode press the INCREASE button (2) to increase temperature and the DECREASE button (3) to decrease temperature. Keep the buttons pressed to rapidly change the temperature setting. The maximum temperature setting is 250° C.

When the display shifts back to working mode the actual temperature and the new set temperature will be shown in the display. Wait until the heat platen has reached the new set temperature before using the machine.

Setting the time

To change the time setting, first press the SET button twice to enter time adjustment mode. The time setting is then adjusted with the increase and decrease buttons in the same way as for the temperature setting.

The display will shift back to working mode when no button is pressed for three seconds, and the new time setting will be shown in the display. The new time setting will be immediately effective.

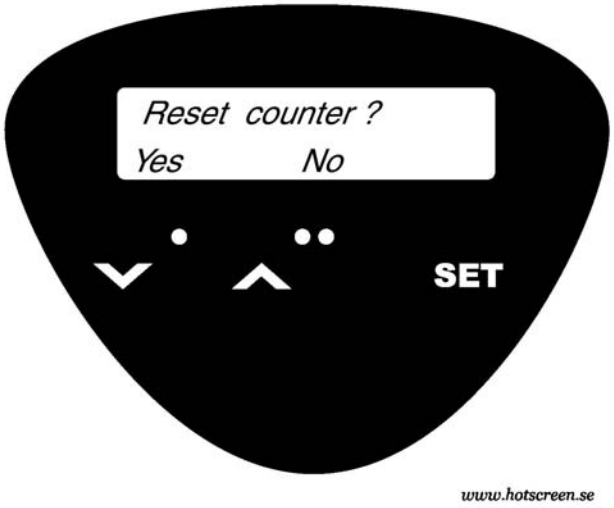


Recommended temperature / time settings

Always follow the recommended temperature and time setting from the transfer decal manufacturer. For Hot Screen Universal and Process transfer decals the recommended setting is 150° C for 15 seconds. This recommendation will work well for application on most common materials. For some materials it might be necessary to make slight adjustments. For application on materials with low heat resistance it might be necessary to lower the temperature and compensate by increasing time. To improve efficiency when pressing on large series of garments it is sometimes possible to increase heat and decrease time providing that the garments can withstand the higher temperature.

Hot Screen transfers can be pressed on at temperatures between 135° C and 160° C. Lower temperatures than 135° C will not melt the adhesive properly leading to poor adhesion of the print. Higher temperatures than 160° C can lead to damaged prints. Note that some transfer decal manufacturers recommend higher temperatures than 160° C. Since the maximum temperature of the Hot 2000 is 250° C it is of course possible to use the Hot 2000 for pressing on such transfers. We advise extra caution when pressing on these transfers since many garments have details such as buttons, zippers and linings that can be damaged at high temperatures.

Resetting the counter



Pressing the SET button three times activates the counter reset mode. This mode will not automatically shift back to working mode. To switch back to working mode **without** resetting the counter press the INCREASE button.

To reset the counter press the DECREASE button. The display will shift back to the working mode and the counting of completed presses will restart from zero.

Adjusting pressure

Adjustment of pressure on the HOT 2000 is done by turning the pressure regulator located on the top back of the machine. The current pressure is shown on a pressure gauge on the left side of the top cover. The actual pressure applied will vary depending on the size of the bottom platen that is used. Since the pressure is distributed over the entire area of the bottom platen, a platen with half the size will only require half as much pressure as a larger platen. When pressing on Hot Screen transfers use the following pressure guidelines.

Large platen:	4-6 bar
Medium oblong platen:	3-4 bar
Small platen:	1-2 bar

Using too much pressure on the small platen is a common mistake that can lead to damaged prints. Always take extra care when the small platen is used. When pressing on heat transfer decals from other manufacturers always follow their recommendations for pressure. Use the following formula to calculate the effective pressure in *kgf* (kilogram force) per cm^2 on a specific platen size:

*Bar * 51,3 / Platensize*

Where *Bar* is the amount shown on the pressure gauge and *Platensize* is the size of the platen in cm^2.

Maintenance

The axel of the machine must be kept lubricated to maximize the durability of the HOT 2000. For a machine that is used for 8 hours per day it is necessary to lubricate the axel once every week. Follow these steps to lubricate the axel.

1. Press both start/stop buttons so the heat platen is in the down position.
2. Disconnect the air pressure connection and turn the power off.
3. Apply a thin layer of lubricant on the entire surface of the axel.
4. Connect the air pressure and turn the machine back on.

IMPORTANT WARNING: When the air pressure is reconnected the heat platen will be immediately raised to the up position. Be careful when making the air pressure connection to avoid being squeezed by the returning heat platen.

NOTE: Be careful to follow the manufacturer's recommendations for maintenance of the compressor. It's very important that auto-drain bottles and/or condensation filters on the compressor are emptied regularly. Failure to do so can lead to damage on the HOT 2000.

If trying to press transfers on textiles not approved for the temperature, or if doing a mistake such as placing a transfer upside down, dirt might get stuck on the surface of the heat platen. In such cases heat the platen to 200° C and wipe the it with a cloth. Be very careful and use a thick cloth to avoid getting burned. Do not use an abrasive scrubber, or any kind of metal that will scratch the Teflon coating of the platen.

Operating the HOT 2000

Start / Function test

Start the HOT 2000 by switching the on/off button on the back of the machine to the on position. Before using the HOT 2000 the following three function tests should be done.

1. Make sure that the emergency stop works by activating it and checking that the machine isn't operational.
2. Check that the machine only operates in the correct heat platen positions. Start by positioning the heat platen in the outermost right position. Lower the platen by pressing both start/stop buttons simultaneously. Raise it again by pressing one of the start/stop buttons. Move the heat platen a couple of mm to the left and check if it's still possible to lower the platen. Repeat the same test and move the heat platen further and further to the left until you find the position where it no longer is possible to lower it. This position should be no further from the outermost position than 15 mm. Do the same test in the opposite direction for the outermost left position.
3. Check that the two-hand security mechanism is operational. Position the heat platen in one of the outermost side positions. First press and hold one of the start/stop buttons and after 0,5 seconds press the other start/stop button. The

security mechanism is working ok if the heat platen doesn't come down when pressing the second start/stop button.

IMPORTANT: If any of these tests fail, do not operate the machine. Contact a service technician to have it repaired.

Pressing heat transfers with HOT 2000

After switching the HOT 2000 on wait for it to reach the target temperature. When the actual temperature (top right on the display) equals the set temperature (top left on the display) the machine is ready to be used. Move the heat platen to one side and place a garment on the bottom platen on the other side. Place a heat transfer decal on the garment. Move the heat platen over the garment and press both start/stop buttons to lower the heat platen. When the set time is reached the heat platen will automatically be raised. You can prepare another garment to be printed on the other bottom platen while pressing takes place.

The two-button activation mechanism on the HOT 2000 is a security measure designed to minimize accidents from unintentional lowering of the heat platen. For the heat platen to be lowered both the start/stop buttons needs to be pushed simultaneously. If the time between pushing the two buttons is longer than 0,2 seconds then both buttons must be released before a new attempt can be made. The heat platen will only be lowered when positioned over one of the bottom platens. If the start/stop buttons are pressed when the heat platen is placed between the bottom plates the display will show "turn to stop".

To stop heat pressing before the set time has passed just push one of the start/stop buttons. This function can be used for preheating garments. Preheating garments for a couple of seconds removes wrinkles and possible water content which may improve the results for some garments. The counter will not increase for pressing cycles that have been stopped. This means that the counter will show an accurate number of pressed garments even if preheating is used. The display will show "Cut" if a pressing cycle is stopped.

When pressing on two sides of a garment, pull the garment over the bottom platen so that the printed side is underneath the platen. This will avoid reheating previously transferred prints on the other side of the garment. It will also avoid any bleed-through of inks on light fabrics.

Try to avoid laying collars, cuffs, zippers and other bulky parts of garments on the bottom platens. Pressing may be affected if a bulky part prevents the appropriate pressure from being applied to the transfer area. Some bulky details may also run the risk of being damaged if pressure is applied to them.

Specifications HOT 2000

Weight:	80 kg
Dimensions (WxDxH):	825 x 880 x 570 mm
Power requirements:	210-240 V, 50-60 Hz, 2200 W
Fuse:	10 A slow
Pressure in air connection Min-Max:	5 – 8 bar
Heat pressing time Min-Max:	1 – 60 sec
Temperature Max:	+ 250° C
Heat platen dimensions (WxD):	380 x 410 mm
Bottom platen dimensions (WxD)	
Large platen:	380 x 400 mm
Medium oblong platen:	150 x 380 mm
Small platen:	150 x 150 mm
Noice level:	< 70 dbA 1m

Parts included

The delivery of HOT 2000 should include:

1 power cord
2 large bottom platens 380 x 400 mm
1 medium bottom platen 150 x 300 mm
1 small bottom platen 150 x 150 mm
1 manual
1 quick reference
1 quick connect air connection
2 bolts for secure attachment of the machine

Spare parts

Spare parts can be ordered from Hot Screen. Use a qualified service technician for repairs or return the machine to Hot Screen for repairs if necessary. For security reasons and best performance of your HOT 2000 it is important that only tested and approved spare parts from Hot Screen are used.

Accessories

Some of the accessories that can be ordered from Hot Screen are:

- Extra bottom platens
    - Large bottom platen 380 x 400 mm
    - Medium bottom platen 150 x 300 mm
    - Small bottom platen 150 x 150 mm
- Aluminium cooling plate with Teflon coating 15 x 15 mm. Used for quick cooling of transfer decals after heat pressing.
- Textile covers for bottom platens. Reduces wear on the platen rubber surface. Reduces friction between platen surface and garments.
    - Large textile cover
    - Medium textile cover
    - Small textile cover
- Teflon sheet 400 x 380 mm. To be placed over the print after removing the bearer from the transfer decal when doing second pressing.
- Teflon cover for heat platen. Protects the heat platen from wear and reduces suction power between heat platen and bottom platen. Makes second pressing easier as no separate Teflon sheet needs to be used.
- Silicone rubber sheet. To be used for second pressing after removing the bearer from the transfer decal when the print should be pressed more tightly into the garment allowing the structure of the textile to blend in with the print.

NOTE: Second pressing is not necessary for most textiles when using Hot Screen transfer decals. For some other brands of transfer decals it might be necessary to do the pressing in two stages, with and without bearer, to get proper adhesion. If in doubt whether this is necessary always check with the manufacturer of transfer decals for the proper heat pressing procedure.

Limited warranty

Hot Screen AB warrants that the heat press is free from defects in both material and workmanship *One Year* from the date of purchase. If any parts or workmanships are found to be defective in manufacture, Hot Screen AB will repair or replace the defective parts or workmanship. This warranty covers all parts to repair the defects, except when damage occurs from accident, alteration, misuse or abuse, or when the machine has been improperly installed or modified in any way. If the press becomes defective during the warranty period, Hot Screen AB reserves the right to recall the defective press to the factory for repairs. A return authorization must be granted by Hot Screen AB prior to it's return. Freight and/or travel costs for warranty repairs will be charged to the customer.

If a press covered by the warranty must be returned to the factory for repairs, Hot Screen AB will make every effort to repair the press. However, Hot Screen AB reserves the exclusive right to determine whether to repair or replace a defective press.

There are no warranties which extend beyond the description on the face hereof. Hot Screen disclaims any implied warranty of merchantability and/or any implied warranty of fitness for a particular purpose. In no event will Hot Screen AB be liable for any damages, including loss of profits, destruction of goods or any other special, incidental, consequential or indirect damages arising from the use of the press or accompanying materials. This limitation will apply even if Hot Screen AB has been advised of the possibility of such damage.

Hot Screen AB
Varlabergsvägen 2
Box 10078
S434 21 KUNGSBACKA
SWEDEN
www.hotscreen.se
Tel: +46 300 568 990
Fax: +46 300 779 95
e-mail: info@hotscreen.se

DECLARATION of CONFORMITY

We,

HOT SCREEN AB
Box 10078
434 21 KUNGSBACKA, Sweden

Declare under our sole responsibility that the product *Hot 2000 Heat transfer press*, to which this declaration relates is in conformity with the following laws, standards or other named normative documents

89/392 /EEG
91/368/EEG
89/336/EEG
92/68/EEG
73/23/EEG

KUNGSBACKA , SWEDEN 2007-10-25

Peter Fransson
President